PHD FELLOWSHIP IN DIGITAL LEARNING SUPPORT – KU LEUVEN KULAK

ITEC is a research group of KU Leuven and imec, Flanders' high-tech research and innovation hub for nanoelectronics and digital technologies. The group conducts interdisciplinary research on the design, development, and evaluation of personalized and adaptive digital solutions, with applications mostly in the domain of technology-enhanced education and training, but also in media and in health. Main research themes include: instructional design and effectiveness of technology-enhanced complex learning (e.g. collaborative problem-solving) based on theory and learning analytics data; the development of data-driven methods for effectiveness research (e.g. multilevel statistical modelling for meta-analysis) and for personalization (e.g. psychometric and machine learning techniques as well as language technology for intelligent tutoring systems). In order to realize this, ITEC brings together researchers trained in the learning sciences, statistics, computer science, and applied linguistics, in a cooperative research lab on the Kulak campus in Kortrijk. The research group often collaborates with industry and societal partners. The Mines-Telecom Institute Lille Douai (IMTLD) represents one of the largest French engineering schools in the north of France. It includes 11 engineering schools with a total of 13400 students (including 1500 PhD students), and a research contract turnover of 100M€. The thesis will be hosted in the department of teaching, research and innovation in Computer Sciences, that works on modelling and learning from data especially to understand human or process behavior. The researchers that will manage the thesis are members of a project named APACHES, about agile methods for higher education.

Website unit

Project

The project is situated in the area of digital support in learning. The overall purpose is to examine how technology can be used intelligently in order to support learning in optimal ways, by dynamically adapting and personalizing the learning environment to the learner, based on a permanent monitoring of various skills and other learner features. The project focuses on two application contexts: an industrial training setting and a higher education setting. In the industrial setting, the goal is to select the most relevant level of learning support for operators that are trained using Augmented and Virtual Reality (AR/VR) applications. In the higher education setting, we will set up a planning support system that tracks students' progress in a project-based learning curriculum, and supports them in selecting relevant courses that fit their curriculum and formation expectations. The project will develop novel methodologies that can optimally measure operator/student learning and recommend the most appropriate learning content, using a combination of techniques from statistics and computer science.

The PhD candidate is expected to complete a PhD within a period of 4 years within the above-mentioned research line. The core of the PhD activities will consist of setting up, executing and reporting on several studies that fit in the overall project. In addition, the PhD candidate will be asked to do a limited amount of educational services.

The PhD study will be supervised by one professor at KU Leuven, and one at IMTLD, and further supported by several members of the KU Leuven and IMTLD research team.

Profile

We are looking for candidates who

- have a Master's degree (e.g., in Educational Sciences, Statistics, or Computer sciences);
- have a special interest in the use of technology and ICT in education and training, and in the use of statistical and computer sciences' techniques;
- have distinguished themselves during their study career;
- are creative and result-oriented;
- are able to work both independently and in an international team;
- have a very good command of English (oral and written).

We kindly ask the candidates to include a short motivation letter in addition to their more detailed CV in which they express their interest in this vacancy.

Offer

The study will lead to a double PhD degree: the degree of PhD in Educational Sciences from the KU Leuven, and the degree of PhD in Computer Sciences from IMT Lille Douai.

As a PhD student, you will have every opportunity to develop yourself further in your professional career, by studying literature, attend seminars and workshops, participate in international conferences and interact with leading researchers from multiple disciplines. This position offers flexibility and the opportunity to work with enthusiastic teams in stimulating multicultural environments. In addition, you will become part of (and contribute to) a network of academic and non-academic partners in the flourishing market of educational technology. Your research will contribute to fast developments in education and learning that have a high societal impact.

We offer a full-time appointment (initially for 1 year, but conditional on a positive evaluation extended to 4 years). During the first year, your workplace is primarily located at the KU Leuven campus Kulak in Kortrijk; in the following years, you will work (approximately evenly) at the KU Leuven campus in Kortrijk and at IMT Lille Douai. Conditions will be negotiated and could be arranged depending on the condition and on the progress in the thesis. In addition to a competitive salary, KU Leuven offers a number of additional advantages, such as the possibility of flexible working, hospitalization insurance, eco-vouchers, reimbursement for commuting by public transport, inexpensive meals, a KU Leuven bicycle, etc. At IMT Lille Douai, the PhD student will have access to all the infrastructure and facilities of the campuses of Lille and Douai, health care coverage, and 50% reimbursement of public transport.

The candidate can start from April 2020 onwards (and not later than September 2020).

Interested?

For more information please contact Prof. dr. Wim Van Den Noortgate, tel.: +32 56 24 61 51, mail: wim.vandennoortgate@kuleuven.be or Prof. dr. Anthony Fleury, tel: +33 6 43 96 79 85, mail: anthony.fleury@imt-lille-douai.fr

You can apply for this job no later than February 23, 2020 via the [online application tool](#)

KU Leuven seeks to foster an environment where all talents can flourish, regardless of gender, age, cultural background, nationality or impairments. If you have any questions relating to accessibility or support, please contact us at diversiteit.HR@kuleuven.be.